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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/292,834	04/16/1999	KOJI MORIGUCHI	P99.0653	4060

29175 7590 09/18/2002

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EXAMINER

HENDRICKSON, STUART L

ART UNIT	PAPER NUMBER
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1754

DATE MAILED: 09/18/2002

23

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

292854

Applicant(s)

Moraguchi

Examiner

Radickson

Group Art Unit

1754

—The MAILING DATE of this communication appears on the cover sheet beneath the correspondence address—

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, such period shall, by default, expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- ☒ Responsive to communication(s) filed on 4/26/02
- ☐ This action is **FINAL**.
- ☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- ☒ Claim(s) 1-10 is/are pending in the application.
- Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- ☒ Claim(s) 1-10 is/are rejected.
- ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- ☐ Claim(s) \_\_\_\_\_ are subject to restriction or election requirement

## Application Papers

- ☐ The proposed drawing correction, filed on \_\_\_\_\_ is ☐ approved ☐ disapproved.
- ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner
- ☐ The specification is objected to by the Examiner.
- ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119 (a)-(d)

- ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119 (a)-(d).
- ☐ All ☐ Some\* ☐ None of the:
- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
- ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a))

\*Certified copies not received: \_\_\_\_\_

## Attachment(s)

- ☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_
- ☐ Interview Summary, PTO-413
- ☐ Notice of Reference(s) Cited, PTO-892
- ☐ Notice of Informal Patent Application, PTO-152
- ☐ Notice of Draftsperson's Patent Drawing Review, PTO-948
- ☐ Other \_\_\_\_\_

Office Action Summary

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The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action. The request filed on 6/26/02 for Continued Examination (RCE) based on parent Application No. 09/292834 is acceptable and a CPA has been established. An action on the RCE follows.

Claims 1-4 and 7-10 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tamaki et al. (EP 762,522).

Tamaki teaches on pages 4 and 5 a graphitized material containing 0.1% boron and having a d spacing of .336 or less. Although the surface area and between-closure structures are not recited, the material of Tamaki is deemed to possess them since the d spacing, which represents basic microstructure, is the same as claimed. Tamaki teaches in the examples a process in which mesophase pitch is carbonized and milled, then contacted with a boron source and heated to graphitization temperatures to make an electrode for lithium batteries. As the process and utility is (essentially) the same, no differences in the product are seen. The examiner takes Official Notice that making powder is known to require pulverization. The process claims are sufficiently unclear to determine whether any differences in process steps actually exist. The closed loop structure is merely the closure of uncompensated bonds (which the atoms would be thermodynamically inclined to do), while the section density appears possessed by the high Li capacity.

Claims 1-4 and 7-10 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Takami et al. 6156457.

Takami teaches a boron-graphite electrode in columns 7 and 10, made by mixing a boron source with carbonized pitch. No difference is seen in the number of layer-planes, as the process of making is essentially the same as claimed. The closed loop structure is merely the closure of

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uncompensated bonds (which is what the atoms would be thermodynamically inclined to do), while the section density appears possessed by the high Li capacity.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.


A) In claim 1, 'scraping' is unclear as to when it occurs and how this step limits the product.

B) In claim 1, it is not clear how a single layer can form a loop- see fig.9. The previous language should be restored.

Applicant's arguments filed 6/26/2002 have been fully considered but they are not persuasive.

The references are deemed to possess the claimed features, even though not explicitly showing them. The 'closed loop' language appears only to substitute one phrase for another, rather than change the scope of the claim in any way. However, unclarity has been introduced, and there is no discussion of single-loop structure. The argument concerning table 1 is not understood and needs elaboration. Discussion of claims 5 and 6 are irrelevant to the rejection. The rejection gives a rationale on how the closed-loop limitation is deemed met, as well as the spacing limitation.

Any inquiry concerning this communication should be directed to examiner Hendrickson at telephone number (703) 308-2539.

  
Stuart Hendrickson  
examiner Art Unit 1754